DOCUMENT RESUME

ED 432 795 CS 510 127

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TITLE Evidence of Gender Disparity in Children's Computer Use and Activities.
PUB DATE 1999-08-00
NOTE 27p.; Paper presented at the Annual Meeting of the Association for Education in Journalism and Mass Communication (82nd, New Orleans, LA, August 4-7, 1999).
PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Children; *Childrens Games; Comparative Analysis; *Computer Mediated Communication; Computers; Elementary Secondary Education; *Online Systems; *Sex Differences; Use Studies; Word Processing
IDENTIFIERS *Computer Equity

ABSTRACT

This multi-method study examines the differences in male and female computer use in the home of children ages 9-14. Long interviews, observations, and surveys with children show males spend more time on the computer, but not on-line, than females. Males and females engage in different computer activities. They play computer games about the same amount of time, but females spend more time on the computer to do word processing and desk-top publishing activities. Males play more games on-line, while females spend more time on-line to communicate. Contains 13 references and 12 tables of data. (Author/RS)

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ED 432 795

Evidence of Gender Disparity in Children's Computer Use and Activities

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Paper submitted to the
Mass Communication and Society Division of AEJMC

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Abstract

This multi-method study examines the differences in male and female computer use in the home of children ages 9-14. Long interviews, observations, and surveys with children show males spend more time on the computer, but not on-line than females. Males and females engage in different computer activities. They play computer games about the same amount of time, but females spend more time on the computer to do word processing and desk-top publishing activities. Males play more games on-line, while females spend more time on-line to communicate.

Evidence of Gender Disparity in Children's Computer Use and Activities

Less than thirty years ago, computers were unfamiliar to children and to the American home. Computers infiltrated the workplaces and schoolrooms of many Americans in the seventies and eighties. Originally operated only by trained specialists, computers were used as word processors, communication vehicles, research engines, calculators, and teaching tools in these environments. Computers have moved and continue to move from the workplaces and the schoolrooms into the homes of many families. Most Americans now consider the computer an essential medium for the home (Intel/Yankelovich, 1997). Research on homes with computers shows that 44 to 48% of homes have computers and that approximately 17% of homes have Internet access (Goldstein, 1998; Intel/Yankelovic, 1997; Number of Homes, 1998). As the computer enters the home, its relationship with other media in the home should be examined. In a recent CNN poll, only 23% of teens said they could live without their computer, while 28% said they could live without their television (Stone, 1998).

Males have dominated computer use since the introduction of the computer. Males spend more time on the computer and they have more computer interest and ability than females. Concerns about male domination of the computer and its future consequences have been expressed. If males are more proficient with computers, they may have an advantage over females that could last a lifetime. Differences in computer use among male and female children are of particular concern. Children's computer use in the home is important to their proficiency with computers in other environments (Martinez, 1994). Children's home computer use serves as one key to their success with computers in the academic environment

(Rocheleau,1995). The differences in male and female computer use are important because children are the future home owners and media users. Their perceptions and patterns of use set early may continue into adulthood.

Recent studies suggest that male domination of the computer may be slowing as the computer is used for a wider variety of purposes (Kwak, 1998; Rocheleau, 1995). Changes in the types of use made of the computer may encourage more females to purchase and use computers. Females are already signing on to on-line activities with more frequency than before (GVU, 1998).

This study examines differences in male and female computer use in the home of children ages 9-14. Of particular interest are the differences in male and female type and amount of computer and on-line use. Other areas examined include difficulties using the computer and perceptions of the computer. Differences in other media use are also included in the study. Research questions examined are 1) Are there differences in the amount of time male and female children spend on the computer and on-line? 2) If so, can these differences be accounted for by type of use? 3) Do females and males differ on the difficulty they have using the computer? 4) Do females and males differ on their perceptions of the computer as an entertaining and educational medium? 5) Do males and females amount of other media use differ?

Literature Review

Early computer users were primarily male (Braun, Goupil, Giroux & Chagnon, 1986; Rogers, 1985; Temple & Lips, 1989). Studies of children found similar results. Studies of children in the fourth through sixth grade found males spent more time on the computer than females (Lin & Lepper, 1987). Much of the difference in amount of computer use of the genders was accounted for by one type of use, game playing. Studies of early on-line users

found them to be male also. White male teens, in particular were found to be heavy users of the Internet (Kraut, Scherlis, Mukhopadhyay, Manning & Kiesler, 1996). Males continue to dominate the computer in more recent studies (Dorman, 1998; Kwak, 1998).

There are signs that male domination of the computer in the home may be changing. Rocheleau examined longitudinal data on children as they moved from the seventh grade through high school (1995). This study found males were more likely to be heavy computer users in the 1987-1991 data but the gap between the amount of computer use in the sexes narrowed in the1992 data. Additional evidence of the narrowing of the gender gap is found in the proportion of females in the on-line surveys conducted by GVU. Female participation in the surveys increased from five percent in 1994 to forty percent in 1997 (Kwak, 1998).

Method

Three methods were combined in two phases in order to study the research questions proposed. Phase one includes long interviews and observations. Long interviews and observations were used to reach some understanding of the children's computer use and to aid in the design of a survey instrument. Phase Two includes a survey of 390 children ages 9-14.

Phase One

In Phase One parents and children were interviewed and children were observed using the computer in their homes. As explained by McCracken (1988), the long interview serves to allow the investigator to glimpse the categories and logic of the individual. Using long interviews with parents and with their children and observing children in their use of the computer provided two types of triangulation of the data as defined by Lincoln and Guba (1985). The first type involves using different methods to provide triangulation of data. Use of several methods allows the imperfection of one method to be canceled out by the strengths

of a second method. Combining interviews and observations to validate information gathered provides this type of triangulation. A second type of triangulation is accomplished by using different sources. In Phase One parents and children are questioned about the child's computer use and media use in the home to achieve triangulation.

Seven children, four males and three females, between the ages of eight and eleven, from middle class homes, in the Central Georgia area, were recruited from personal contacts, teacher recommendations, and contacts suggested by research subjects. Parents of the children were approached through phone contact to request permission for the child and parent to participate in the study.

Three instruments were used in Phase One of the study: two questionnaire guides for the long interviews, one for the child and one for the parent, and an observation sheet. According to McCracken (1988), a questionnaire guide serves various purposes in long interviews. The questionnaire guide is used in the long interviews to ensure that all information is covered in the same order for each respondent, to provide prompts necessary, to manufacture distance, to establish direction for the interview, and to allow the interviewer to concentrate on the subject's responses. Questionnaire guides covered the nature of computer use in the home and other media use in the home. The observation sheet was used to record information gathered while the researcher observed the child's computer use.

After receiving consent from the parent for the child to participate in the study, the researcher visited the home and observed the child using the computer. Observation periods ranged from thirty minutes to an hour. After observing the child use the computer, the researcher interviewed the child about his computer use. These audio taped interviews lasted from fifteen to thirty minutes. A second visit to the home was arranged to interview one of the parents. These audio taped interviews lasted approximately one hour.

Each instrument was transcribed and reviewed several times by the researcher. Lincoln and Guba's (1985) constant comparative analysis was then used to analyze the data. Summaries were formed of each long interview and of the observations. Themes about the information gathered were formed based on information from categories found in the data.

Results of Long Interviews and Observations

One of the themes that formed from the long interviews and observations was the male dominance of the computer in the home. This dominance was apparent in children and their parents. Male dominance was observed in amount of computer use, location of the computer in the home, interest in the computer, and knowledge about the computer.

In almost every household, if a male sibling existed, even those households where the male sibling was the younger sibling, the male was the primary user of the computer. In one of the households, the male, the younger child, had a computer in his bedroom, while his older sister used the father's computer in the study. The father said the son was given the computer instead of the daughter because the daughter was not as interested as the son was in using the computer. Other parents feel their female child does not have the interest in the computer that their male child has. The parents have trouble explaining why they feel this was true.

In most of the households, the father is the primary individual in charge of the computer. One of the mothers consistently said she knew little about what programs and accessories they have for the computer, could not recall game tittles purchased, and in general, was not enthusiastic about the children using the computer. The father, in contrast, is the individual responsible for purchasing the computer and additional software and for obtaining on-line access for the home. These findings led to further examination of the differences in male and female computer use.

Phase Two

In the second phase, a survey was designed from information gathered in Phase One of the study. The survey was pre-tested on twenty-five children at a summer camp. Children and teachers at the camp suggested changes in the survey instrument and the survey procedures.

The survey was a self-administered instrument. Survey sections included amount of children's computer use, child variables, family factors, social factors, and other media measures. Three primary forms of questions were used in this survey. One form, the days per week measure, measured the number of days per week activities were done. A second form of questions, the time per day measure, asked how much time per day, on days the activity was done, was spent on the activity being examined. This measure provided no categories but included blanks for the child to fill in the hours and minutes per day spent on the activity. A third form of question used a five-response likert scale, ranging from strongly disagree to strongly agree.

Children's computer use was examined by two measures. One measure asked the number of days per week, in the average week, the child used the computer at home. A second measure examined the amount of time the child spends using the computer each day he uses the computer. Types of computer use were measured by question type one above which asks how many days per week the child spends on each activity. Types of use measured included use to complete tasks, for entertainment, for education, and for information.

Amount of on-line use was measured using the same measures described above. Categories of on-line use measured included on-line use for communication, for entertainment, for education, for information, and to complete tasks.

The Sample

Children surveyed were from two counties in two states, North Florida and Central Georgia. Ten schools were selected from the two areas. In total, there were 2,429 students in the fifth through eighth grades at the schools selected. Of these students, 949 or 39% reported that they had computers. Of those with computers, 396 or 41.7% returned permission slips from parents allowing the child to complete the survey. Of the 949, 390 or 41% completed the survey.

Children who completed the survey range from ages nine through fourteen (see Table 1). Slightly more than half (52.9%) of the children are female. The majority of the sample is white (83%). Most of the children live with both parents and have siblings.

Results

Of the 390 children 291 or 75% have one computer in their home (see Table 2). Of the 180 males, 71% have only one computer; of the females, 78% have only one computer. Ninety-eight or 25.1% of all children reported having more than one computer; 29% of males had more than one computer and 22% of females.

Almost half of the children (48.2%) have on-line access from their home. Fifty-two percent of the males and 42% of the females have on-line access from their homes. Over one-third of the children (37.1%) have their own computer. Forty-one percent of the males have their own computer; 34% of the females have their own computer.

Chi-square and analysis of variance tests were run on the appropriate variables with the male and female groups (see Tables 3 & 4). Chi-square tests on the variables have own computer, have more than one computer, and have on-line access found on-line access had statistically significant differences between males and females. More males had on-line access than females. Analysis of variance on the two groups and variables, how long had

computer and how long had on-line access, found no statistically significant differences in males and females.

Amount of Computer Use

Children reported they use the computer on an average of 3.5 days per week (see Table 5). Males use the computer on average of 3.8 days per week. Females use the computer on an average of 3.3 days per week. On the days children use the computer, they use it an average of 94 minutes (see Table 5). Males use the computer an average of 104 minutes on days they use it; females use the computer an average of 86 minutes on days they use it.

A computer use scale was developed from the two measures above. Children's report of days of use per week was multiplied by amount of time of use per day to form the computer use scale. The mean on this scale was 377 which represents 377 minutes of computer use per week. The mean for males on this scale was 440 minutes of computer use per week; the mean for females on the scale was 325 minutes of computer use per week (see Table 5).

Differences in the amount of computer use of males and females was examined using analysis of variance (see Table 5). Each of the three measures of computer use were examined. Differences in male and female computer use were statistically significant for each of the three measures. Males use the computer more days, more time per day, and more time per week than the females in the study.

Children's on-line computer use was also examined by the days per week measure and amount of time per day on-line measure. Children who had on-line access reported they go on-line from home on an average of 2.3 days per week (see Table 6). Males report they

go on-line from home on an average of 2.4 days per week; females go on-line on an average of 2.3 days per week.

Children reported going on-line an average of 70 minutes per day of use (see Table 6). Males go on-line an average of 73 minutes per day of on-line use; females go on-line an average of 67 minutes per day of on-line use.

An on-line use scale, similar to the computer use scale, was developed. Days of on-line use per week was multiplied by amount of time of on-line use per day to form the on-line use scale. The mean on this scale was 224, which represents 224 minutes of on-line use per week. The mean for males on this scale was 235 minutes, while the mean for females was 219 minutes.

Differences in the amount of on-line use of males and females were examined using analysis of variance (see Table 6). Each of the three measures of on-line use was examined. Differences in male and female on-line use are not statistically significant for any of the three measures.

Comparison of Types of Computer and On-line Use

Children's type of computer use and on-line use were examined. A comparison of males and females and the differences in the types of activities they engaged in on the computer was made.

Children were asked how many days per week they spend on the computer on seven activities in four categories: tasks, entertainment, education, and information. Two of the activities are in the task category: word processing and desk-top publishing. Two are in the entertainment category: play computer games and entertainment. Two are in the education category: to help with schoolwork and to use educational software. One is in the information category: to use electronic reference materials.

Children reported spending the most time on the entertainment category (see Table 7). They spend an average of 3.8 days per week on computer games and 2.8 days per week on entertainment. (Note that these measures are not mutually exclusive.) Males spend an average of 3.7 days on computer games and 2.8 on entertainment. Females spend an average of 3.8 on computer games and 2.8 on entertainment.

Differences in males and females for each of the types of use were examined using analysis of variance (see Table 7). Statistically significant differences were found for two types of use measured, word processing and desk-top publishing. Females use the computer more days than males for word processing and desk-top publishing. No statistically significant differences were found for other types of computer use measured.

Children's on-line activity measures include seven activities grouped into four categories. Two of the activities are communication related: e-mail and communication. Two of the measures are entertainment related: entertainment and play games. One is education related: to do research for education. One is information related: to get information; and one is task related: to purchase items.

Children reported spending the most time on-line on the entertainment category (see Table 8). They spend an average of 2.8 days per week on game play and 2.5 days per week on entertainment. Males reported they spend an average of 3.2 days per week on game play and 2.6 days per week on entertainment. Females spend an average of 2.3 days per week on game play and 2.4 days per week on entertainment.

Differences in males and females for each of the types of on-line use were examined using analysis of variance (see Table 8). Statistically significant differences were found for two types of use measured, e-mail and game play. Females go on-line more days than males

to e-mail. Males go on-line more days to play games than females. No statistically significant differences were found for other types of on-line use measured.

Comparison of Social Aspects, Experiences, and Perceptions

Several other areas were examined concerning computer use. These areas include the computer as a social or solitary activity, difficulty using the computer, and the child's perception of the computer.

The social or solitary use of the computer looked at whether the child uses the computer alone or with others (see Table 9). Children reported spending most of their time on the computer alone. They said they spend an average of 3.7 days per week by themselves on the computer. Males said they spend an average of 3.6 days per week by themselves on the computer; females said they spend an average of 3.7 days per week by themselves on the computer. Children use the computer an average of 1.7 days per week with a sibling or friend and an average of 1.4 days per week with a parent. Males use the computer an average of 1.5 days per week with a sibling or friend; females use the computer an average of two days per week with a sibling or friend. Males use the computer 1.4 days per week with a parent and so do females. Almost one-third (32.8%) of the children said they never use the computer with a parent; 17.9% said they never use the computer with a sibling or friend. Thirty percent of males never use the computer with a parent compared to thirty-five percent of the females who say they never use the computer with a parent.

Differences in social and solitary use of the computer were examined for males and females. A statistically significant difference was found for computer use with friends/siblings. Females use the computer more with friends or siblings than males do.

Peer use and talk about use of the computer was also examined (see Table 10). Males said their siblings use the computer 3.4 days per week, while females said their siblings use

the computer 3.5 days per week. The majority of males and females said their friends use a computer and talk about computer use. Analysis of variance found no statistically significant differences between males and females on peer or sibling use of the computer.

Fifteen percent of males agree that they have difficulty using computer equipment compared to 24 percent of females. Twenty-three percent of males say they have difficulty running the software; twenty-two percent of females agree they have difficulty running computer software. Analysis of variance of males and females found a statistically significant difference between males and females on the amount of difficulty using the computer equipment. Males have less difficulty than females using the computer (see Table 11).

Seventy-three percent of males say the computer is educational and seventy-four percent of females agree. Eighty percent of males say the computer is entertaining and 77 percent of females agree. Analysis of variance shows no statistically significant difference on these variables between males and females.

Other Media Use.

Other media use examined includes television, radio, newspaper, magazine, book, and movie theater use. Amount of use of each medium was measured by asking children how much time they spend on the average day using each medium. Movie theater use was measured by asking how many times per month the child attended the movie theater.

Children responded they spend an average of 214 minutes per day watching television, 113 minutes per day listening to the radio, 12 minutes per day reading a newspaper, 28 minutes per day reading a magazine, 60 minutes per day reading a book, and attend the movie theater an average of 14 times per year (see Table 12).

Males said they spend an average of 205 minutes per day watching television, 81 minutes per day listening to the radio, 13 minutes per day reading a newspaper, 25 minutes per day reading a magazine, 53 minutes per day reading a book and attend the movies 13 times per year.

Females spend more time with the media. They spend an average of 217 minutes per day watching television, 142 minutes per day listening to the radio, 12 minutes per day reading a newspaper, 32 minutes per day reading a magazine, 65 minutes per day reading a book and attend the movie theater 15 times per year.

Although females say they spend more time watching television than males, more males (77%) say they have their own television than females (71%). Analysis of variance found statistically significant differences between males and females in amount of time spent listening to the radio, with audio/visual media, and with all types of media.

Discussion

This study examines male and female computer use in children ages 9-14. The long interviews and observations of children using the computer suggests differences in male and female computer use and perceptions of the computer. Surveys of children examine the differences in male and female computer use and their amount of computer use, types of use, perceptions of computer use, and amount of other media use.

The study found that male and female children differ in their amount of home computer use. Males use the computer more days per week than females and spend more time on the computer each day they use the computer. This finding is consistent with previous studies on computer use (Lin & Lepper, 1987).

No such differences were found between males and females in this study when on-line use was examined. Male and female children go on-line about the same number of days

per week and spend about the same amount of time on-line. Previous studies on male and female computer use suggest that female use of on-line access is approaching that of males (Kwak, 1998; GVU, 1998).

When types of computer use are examined, females spend more time on desk-top publishing activities and word processing activities than males. Females use the computer to do desk-top publishing activities about once or twice a week, while males engage in desk-top activities less than once per week. Females use the computer for word processing closer to two days a week, while males engage in word processing only one day a week. This finding suggests that females do use the computer for different activities than males, and suggests some of the computer activities which females are more likely to engage than males.

Males and females also differ in the types of activities they do on-line. Males spend more time on-line on game play than females. Males say they go on-line to play games three days a week, compared to females who say they go on-line to play games two days a week. Females spend more time on-line to send and receive e-mail than males. Females go on-line to send or receive e-mail two days a week, while males use e-mail closer to one day a week.

This finding suggests that males and females may be going on-line about the same number of days per week, but they are doing different activities while on-line. Females spend more days on-line on e-mail, a communication activity, while males spend more time on-line to play games, an entertainment activity.

Other differences in male and female computer use were examined in an attempt to explain the differences in amount of use. This study found children's computer use is a solitary activity. Most of the time children spend on the computer they spend alone. They seldom use the computer with parents, siblings, or friends. Females, however, do spend

more time with friends on the computer than do males. This suggests that females may see the computer as more of a social tool than males.

Although males and females spend most of their time on the computer alone, they say that their friends and siblings do use the computer and talk about their computer use. Therefore the activity itself may not be a social activity, but the activity is a topic of social conversation. Computer use at school is about equal for males and females. Both report they use the computer less than two days per week at school.

One area which may explain why females spend less time on the computer than males is that females have more difficulty using the computer than males. Females do not have more difficulty operating the software, but they do have more difficulty operating the hardware. This suggests that females are not as comfortable as males are with the operation of the computer itself.

Other Media Use

Differences between male and female other media use were also examined. Females, in general spend more time with the media than males. They spend more time listening to the radio than males do, more time with audio/visual media, and more time with all media combined.

Conclusions

Males in this study continue to dominate traditional computer use, but not on-line use. Males ages 9-14 use the computer more than female counterparts until on-line use is examined. Then females and males spend an equal time on-line. This study suggests that type of use may play an important role in explaining why males use the computer more than females and why the difference in amount of computer use disappears as on-line access increases. The study does not explain the type of use that accounts for the additional time

males spend on the computer. Females report spending more days on word processing and desk-top publishing than males. Males and females use the computer an equal number of days to play games and for entertainment. They also spend about the same amount of time on schoolwork, educational software, and information activities. Type of computer activity has been used to explain the difference in the amount of time on the computer by males and females. Previous studies have suggested that males use the computer more for game play than females and that the difference in the amount of computer use by males and females is in the amount of time spent on game play (Lin & Lepper, 1987). This study finds that that explanation may have been true at one time but is no longer true. Females, in this study, say they also use the computer for game play as much as males do and that they spend more time than males on some other computer activities measured.

The solitary use of the computer and the social use of on-line access may explain some differences in male and female children's computer use in the home. Most time on the computer is spent alone. Females make more social use of the computer by spending more time on the computer with friends than males do. This suggests females may not spend as much time on the computer because computer use is primarily a solitary activity. This may also explain why the difference in male and female use of the computer disappears as on-line access increases. Females spend more time on-line with communication or social activities. They do not spend more time on the computer because, unless the computer is connected to others outside the home, the computer does not usually function as a social tool.

Females also spend more time with the established media in the home, specifically the radio, and audio/visual media. This leads us to question if the computer continues to enter the home and its role in the home stabilizes, will females also use the computer more than males.

The strengths of this study are the multi-method used and the large number of children identified with computers. One weakness is the sample, which was based on a limited number of schools and a nonrandom sample and therefore may threaten the generalizability of the study.

Future study should attempt to identify types of computer use which males speed more time on than females. Computer use as a part of all communication technologies in the home needs to be examined. Interrelationships among media use in the home will help provide a better understanding of computer and on-line use in the home and help predict change in other media use in the home.

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Table 1 - Children's Demographics

Demographic	n	%
Age		
9	22	5.7
10	97	25.0
11	111	28.6
12	80	20.6
13	64	16.5
14	14	3.6
Base	(388)	(100)
Gender		
Male	181	47.1
Female	203	52.9
Base	(384)	(100)
Race		
White	318	83.0
African American	45	11.7
Other	20	5.3
Base	(383)	(100)
Whom Child Lives With		
Both parents	274	71.4
Mother	83	21.6
Father	13	3.4
Grandparent	4	1.0
Other	10	2.6
Base	(384)	(100)
# of People Under 18 in Hh		
One	76	20.1
Two	187	49.5
Three	82	21.7
Four	23	6.1
Five or more	10	2.6
Base	(390)	(100)

Table 2 - Computer Ownership

Child's Report of Computers in the Home	Total(%)	Males	Females
# of Computers in Home			
One	291 (75%)	127 (70%)	159 (78%)
Two	70 (18%)	43 (24%)	26 (13%)
Three	20 (5%)	7 (4%)	13 (6%)
Four	6 (1%)	2 (1%)	4 (2%)
Five or more	2 (.5%)	1 (.6%)	1 (.5%)
Base	389(100%)	180(100%)	203(100%)
How Long Had Computer			
6 months or less	38 (10%)	20 (11%)	18 (9%)
7 months through 2 years	152 (39%)	73 (40%)	75 (37%)
More than 2 years through 5 years	158 (40%)	67 (37%)	90 (44%)
More than 5 years	41 (11%)	21 (12%)	19 (9%)
Base	389(100%)	181(100%)	202(100%)
Have On-line Access			
Yes	184 (48%)	95 (54%)	85(42%)
No	198 (52%)	81 (46%)	116(58%)
Base	382(100%)	176(100%)	201(100%)
How Long Had On-line Access			
6 months or less	72 (39%)	32 (34%)	39 (44%)
7 months through 2 years	97 (49%)	48 (50%)	41 (47%)
More than 2 years through 5 years	20 (11%)	12 (13%)	8 (9%)
More than 5 years	3 (2%)	3 (3%)	0 (0%)
Base	192(100%)	95(100%)	88(100%)
Computer Ownership			
Child has own computer	145(37%)	74 (41%)	68 (34%)
Does not have own computer	245(63%)	107 (59%)	135 (67%)
Base	390(100%)	181(100%)	203(100%)

Table 3 - Chi-square of Gender and Computer Variables

	Mean(N)			sig*
	Total	Males	Females	
# of computers in home	1.4 (383)	1.4 (180)	1.3 (203)	ns
Have own computer (1=no;2=yes)	1.4 (384)	1.4 (181)	1.3 (203)	ns
Have on-line access (1=no;2=yes)	1.5 (377)	1.5 (176)	1.4 (201)	.02

*Pearson Chi-Square

Table 4 - ANOVA of Gender and Computer Variables

	Mean			df	F	sig
	Total	Males	Females			
How long had a computer	34 min.	36 min.	33 min.	1	.9	ns
How long had on-line access	14 min.	15 min.	11 min.	1	3.5	Ns

Table 5 - ANOVA of Gender and Amount of Computer Use

	Mean(N)			d	F	sig
	Total	Males	Females	f		
Days per week on comp.	3.5 days (381)	3.8 days (179)	3.3 days (202)	1	5	.03
Time per day on comp.	1 hr.35 min. (377)	1 hr.44 min. (175)	1 hr.26 min. (202)	1	4	.04
Amount of comp. use per week	6 hr.19 min. (377)	7 hr.20 min. (176)	5 hr.25 min. (201)	1	5	.03

Days x Amount = Use per week

Table 6 - ANOVA of Gender and Amount of On-line Computer Use

	Mean(N)			df	F	sig
	Total	Males	Females			
Days per week on-line	2.4 days (192)	2.4 days (101)	2.4 days (91)	1	.0	ns
Time per day on-line	1 hr.10 min. (169)	1 hr. 13 min. (90)	1 hr.7 min. (79)	1	.3	ns
Amount of on-line use per week	3 hr. 47min. (185)	3 hr.55 min. (97)	3 hr.39 min. (88)	1	.1	ns

Days x Amount = Use per week

Table 7 - Child's Types of Computer Use

Category	Activity	Days per Week			df	F	sig
		Total	Males	Females			
Education	Schoolwork	1.7	1.5	1.8	1	2.3	ns
	Educational software	1.3	1.2	1.5	1	2.8	ns
Entertainment	Play computer games	3.8	3.8	3.8	1	.01	ns
	For entertainment	2.8	2.8	2.8	1	.01	ns
Information	Reference materials	1.7	1.7	1.7	1	.01	ns
Tasks	Word processing	1.4	1.1	1.6	1	7.3	.01
	Desk-top publishing	1.1	.9	1.3	1	9.7	.00

Table 8 - Child's Types of On-line Use

Category	Activity	Days per Week			df	F	Sig
		Total	Males	Females			
Communication	E-mail	1.8	1.4	2.2	1	5.1	.025
	Communication	1.9	1.8	2.0	1	.6	ns
Education	School research	1.6	1.5	1.7	1	.2	ns
Entertainment	To play games	2.8	3.2	2.3	1	6.2	.01
	Entertainment	2.5	2.6	2.4	1	.4	ns
Information	Get information	1.9	2.1	1.6	1	2.7	ns
Tasks	Purchase items	.7	.8	.5	1	1	ns

Table 9 - Social and Solitary Computer Use

	Mean(N)			df	F	Sig.
	Total	Males	Females			
Use comp by self	3.7 (381)	3.7 (180)	3.7 (201)	1	.00	ns
Use comp w/sibling/friend	1.8 (374)	1.5 (178)	2.0 (196)	1	5.4	.02
Use comp w/parent	1.4 (380)	1.4 (180)	1.4 (200)	1	.1	ns

Table 10 - Peer Use of Computer

	Mean(N)			df	F	sig.
	Total	Males	Females			
Friends use comp.	2.2 (380)	2.1 (179)	2.3 (201)	1	1.2	ns
Siblings use comp.	3.4 (379)	3.4 (178)	3.5 (201)	1	.1	ns
Friends talk about comp.	2.7 (377)	2.6 (176)	2.8 (201)	1	2.2	ns

Table 11 - Other Variables

	Mean(N)			df	F	sig.
	Total	Males	Females			
Difficulty using equipment	3.6 (379)	3.8 (178)	3.4 (201)	1	7.8	.01
Difficulty running software	3.5 (377)	3.6 (181)	3.4 (196)	1	2.2	ns
Computer too slow	3.6 (375)	3.6 (177)	3.5 (198)	1	.6	ns
Educational	1.9 (380)	1.9 (180)	1.9 (200)	1	.1	ns
Entertaining	1.9 (376)	1.8 (175)	1.9 (201)	1	2.2	ns
Use comp. at school	1.6 (381)	1.8 (180)	1.5 (201)	1	2.6	ns

Table 12 - ANOVA of Gender and time spent with types of media

	Mean(N)			df	F	Sig.
	Total	Males	Females			
TV	211 (365)	204 (175)	217 (190)	1	.3	ns
Radio	112 (373)	81 (177)	142 (196)	1	14	.00
Newspaper	13 (366)	13 (173)	12 (193)	1	.0	ns
Magazines	29 (372)	25 (176)	32 (196)	1	2.7	ns
Book	59 (375)	53 (176)	65 (199)	1	2.4	ns
Movie theater	14* (344)	13 (160)	14 (184)	1	.6	ns
A/V combined	341 (328)	307 (157)	374 (171)	1	3.9	.05
Print combined	100 (363)	92 (171)	108 (192)	1	2.1	ns
All media	447 (318)	406 (153)	489 (165)	1	4.3	.04

Mean = minutes per week; * # of movies attended per year